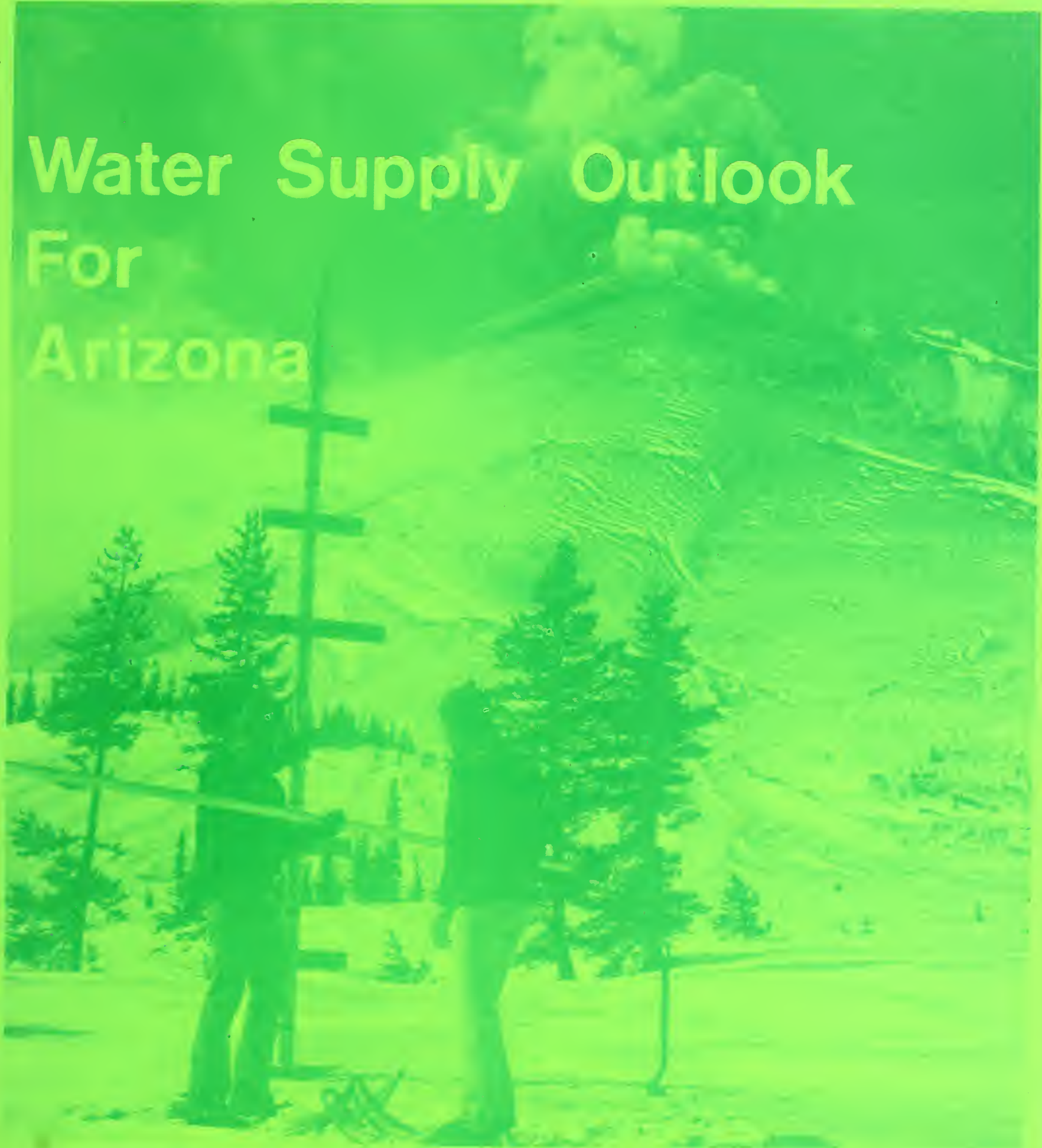


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# Water Supply Outlook For Arizona



SOIL CONSERVATION SERVICE  
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

SALT RIVER VALLEY WATER USERS ASSOCIATION  
and ARIZONA WATER COMMISSION

AS OF  
**JAN. 1, 1981**



## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SNOW SURVEYORS MAKING SPECIAL MEASUREMENTS NEAR  
MT. ST. HELENS VOLCANO IN WASHINGTON, APRIL 1980.

## PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

## PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



# **WATER SUPPLY OUTLOOK FOR ARIZONA**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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*The mountain snowpack: one of Arizona's vital resources.*  
ARIZONA SUMMARY  
*As of*  
*January 1, 1981*

FORECASTS ARE FOR MUCH BELOW AVERAGE STREAMFLOW FOR  
THE JANUARY THROUGH MAY PERIOD. MAJOR RESERVOIRS  
HAVE ABOVE AVERAGE STORAGE AND WILL BE A KEY FACTOR  
IN THIS YEAR'S WATER SUPPLY IF PRESENT CONDITIONS  
CONTINUE.

## WATER SUPPLY

Water supplies in Arizona are expected to be generally adequate where users have access to reservoir storage or pumped water. However, allotments may be reduced from last year. Users relying on direct stream diversion should prepare for below average water supply unless there is a change in the prevailing weather conditions. January to May streamflow is forecast to be much below average — Salt River, 35% of average; Verde River, 44%; Tonto Creek, 25%; Gila River, 32%; San Francisco River, 30%; and Little Colorado River, 40%.

## SNOW COVER

The snowpack in central Arizona and western New Mexico is extremely small. Snow is not continuous over large areas and is generally found only above 9000 feet elevation. The snow water equivalent on January 1 was 7% of average on the upper Gila River watershed, 14% of average on the upper Little Colorado River, 15% on the Salt River, and 4% of average on the Verde River drainage. Unseasonably warm temperatures have melted most of the small amount of snow that was received since October 1.

## PRECIPITATION

Precipitation has been below average. Snow zone precipitation gages recorded catches ranging from 12% to 48% of average since November 1, 1980. November received practically no precipitation. The precipitation that was received has not been effective since the unseasonable warm weather has kept evaporation rates high.

## STREAMFLOW

Reported inflow to the Salt River Project system in November-December was 81,000 acre-feet, or 46% of average for this two-month period. November-December streamflow on the Gila River at Solomon was 12,000 acre-feet, or 28% of average. The Little Colorado River at Cameron was reported to have no flow during October and November.

## RESERVOIR STORAGE

Carryover storage is good. Six Salt River Project reservoirs contain 1,478,000 acre-feet, at 71% of capacity. Current storage is 119% of average. San Carlos reservoir contains 665,800 acre-feet, which is 61% of capacity. Lake Pleasant is holding 103,000 acre-feet at 66% of capacity. Four major reservoirs on the Colorado River have a combined storage of 47,273,000 acre-feet, or 88% of capacity. Lyman Reservoir on the Little Colorado River is 75% full with 23,100 acre-feet. Painted Rock Reservoir on the Gila River is empty.





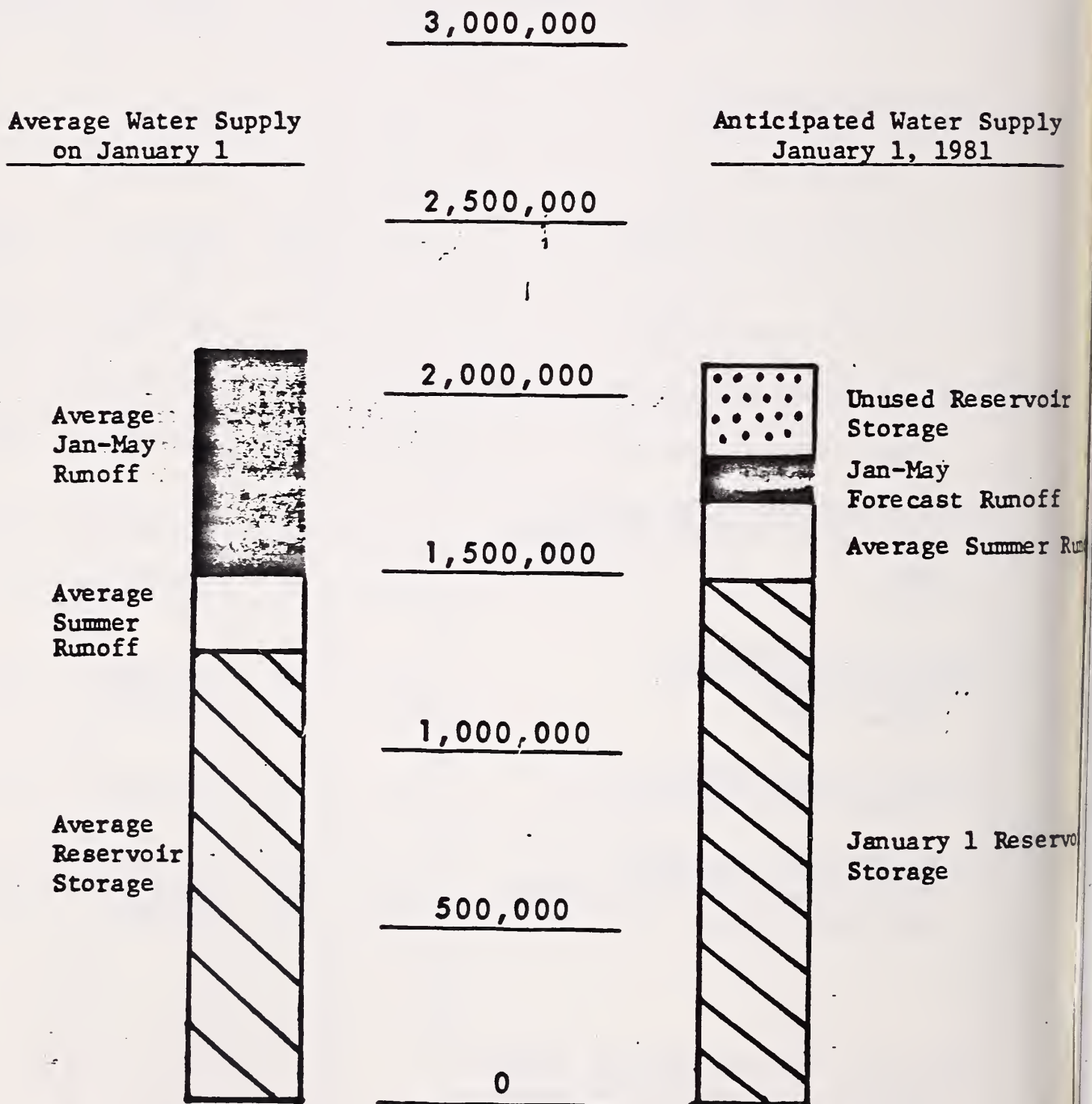
STREAMFLOW FORECASTS ABOUT JANUARY  
1, 1981

STREAMFLOW FORECASTS		THIS YEAR		PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average †
<u>SALT RIVER DRAINAGE</u>					
Salt near Roosevelt	122	35	Jan-May	1,112.6	345.0
"	15	35	January	58.9	42.8
Tonto Creek near Roosevelt	13.8	25	Jan-May	382.9	54.9
"	3.2	26	January	63.9	12.5
Verde River above Horseshoe	98	44	Jan-May	1,063.6	223.9
"	18	45	January	166.4	39.9
Total Salt River Project Streams	233.8	37	Jan-May	2,559.1	623.8
"	36.2	38	January	289.2	95.2
<u>GILA RIVER DRAINAGE</u>					
Gila River at Calva	30	25	Jan-May	309.9	118.5
Gila River near Gila	24	40	Jan-May	78.3	60.1
Gila River near Solomon	47	30	Jan-May	377.2	155.9
"	4	15	January	16.0	25.9
Gila River near Virden	28	35	Jan-May	106.3	78.7
Frisco River at Clifton	22	29	Jan-May	178.6	75.1
Frisco River at Glenwood	10.2	30	Jan-May	79.1	33.9
<u>LITTLE COLORADO RIVER DRAINAGE</u>					
Little Colo. River above Lyman Dam	4.7	40	Jan-June	---	11.7
Greer	3.3	41	Jan-June	---	8.0
<u>GRANITE CREEK DRAINAGE</u>					
Granite Creek	1.5	---	Jan-May	---	---
Willow Creek	0.9	---	Jan-May	---	---
<u>MIMBRES RIVER DRAINAGE</u>					
Mimbres River near Mimbres	0.7	---	Jan-May	---	---
<u>COLORADO RIVER DRAINAGE</u>					
Virgin River near Littlefield	31	65	Apr-June	151.9	47.9
Lake Mary Inflow	2.9	52	Jan-May	---	5.6
♦ Based on 15-year period, 1963-77					
* Average for less than 15 years.					

† Based on 15-year period, 1963-77  
\* Average for less than 15 years.

# WATER SUPPLY INVENTORY SALT RIVER VALLEY SYSTEM

IN ACRE-FEET



Based on Present Storage + Forecast Spring Runoff + Average Summer Runoff

## RESERVOIR STORAGE (Thousand Acre Feet) JANUARY 1, 1981

BASIN or STREAM	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average†
<u>GILA RIVER DRAINAGE</u>					
Agua Fria	Lake Pleasant	157.6	103.5	96.9	69.1
Granite	Watson Lake	4.7	1.40	1.7	2.1
Granite	Willow Creek	6.1	.25	1.2	2.5
Gila	San Carlos	1,073	665.8	795.2	216.6
Gila	Painted Rock Dam	2,492	0	117.9	—
Salt (4)	Roosevelt, Apache, Canyon & Saguaro	1,755	1438.0	1437.9	1,148
Verde (2)	Bartlett and Horseshoe	309.6	40.5	124.7	94.7
Salt and Verde	6 Salt River Project Reservoirs	2,065	1478.5	1562.6	1,243
<u>COLORADO RIVER DRAINAGE</u>					
Colorado	Lake Havasu	619.4	565.9	547.7	543.5
Colorado	Lake Mohave	1,810	1595.6	1631.0	1,593
Colorado	Lake Mead	26,159	23,006	22,629	17,409
Colorado	Lake Powell	25,002	22,105	20,855	11,625*
Little Colorado	Lyman	30.6	23.1	—	14.3
Little Colorado	Show Low Lake	5.1	0.5	—	1.5*
† Based on 15-year average, 1963-77					
* Average is for less than 15 years of record.					

† Based on 15-year average, 1963-77

\* Average is for less than 15 years of record.



## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

ABOUT JANUARY 1, 1981

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average
Gila	10	4	4
Salt	10	17	12
Verde	10	7	4
Little Colorado	5	20	14

# SNOW ABOUT JANUARY 1, 1981

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average †
<b>SALT RIVER</b>						
Baldy *	9220	12/30	7	1.5	2.2	4.0
BALDY SNOTEL	9220	12/30	—	2.4	2.3	---
Beaver Head	8000	12/30	0	0.0	2.7	2.2
BONITO ROCK SNOTEL	8270	--	—	—	---	---
Canyon Creek	7500	12/30	0	0.0		
Canyon Point	7600	12/30	0	0.0		
Coronado Trail	8400	12/30	0	0.0	2.7	2.2
CORONADO TRAIL SNOTEL	8400	12/30	--	0.0	1.9	---
Forest Dale	6430	12/31	0	0.0		
Ft. Apache	9160	12/30	9	1.5	2.7	4.3
Hamagan Meadows	9090	12/30	3	0.7	4.3	4.8
HANNAGAN MEADOWS SNOTEL	8960	12/30	—	2.4	3.7	---
Hawley Lake	8250	12/31	3	1.0		
HAWLEY LAKE SNOTEL	8250	12/30	—	1.3	5.6	---
Heber	7640	12/30	T	0.0	1.8	3.0
HEBER SNOTEL	7640	12/30	--	0.0	1.8	---
Maverick Fork	9050	12/30	3	0.6	2.6	4.6
MAVERICK FORK SNOTEL	9200	12/30	—	1.0	3.1	---
McNary	7225	12/31	T	0.2	1.8	2.0
MCNARY SNOTEL	7225	12/30	--	0.0	4.0	---
Milk Ranch	7000	12/31	0	0.0	1.4	1.5
Mt. Ord (A)	11000	—	—	—	—	—
Nutrioso *	8500	12/31	0	0.0	1.9	1.5
Promontory Butte	7900	12/30	1	0.2		
PROMONTORY BUTTE SNOTEL	7900	12/30	—	0.5	---	---
Smith Cienega (A)	9850	—	—	—	---	---
Sunrise Summit	10600	12/30	6	1.5	---	---
Wilson Lake	9000	12/30	11	2.0	4.1	5.0
Workman Creek	6900	12/30	0	0.0	0.5	4.5
WORKMAN CREEK SNOTEL	6900	12/30	—	0.0	0.4	---
<b>LOWER COLORADO RIVER</b>						
Bill Williams Intermediate	8550	NOT	MEASURED	---	---	---
Bill Williams Summit	8950	NOT	MEASURED	---	---	---
Chalender *	7100	12/31	0	0.0	1.6	1.8
Fort Valley	7350	12/31	0	0.0	0.9	1.2
Grand Canyon	7500	L A T E	R E P O R T			
Williams Ski Run	7720	NOT	MEASURED	---	---	---

† 1963-77 15-year period. (\*) Adjacent drainage. (\*\*) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data is edited.

# SNOW ABOUT JANUARY 1, 1981

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
<b>GILA RIVER</b>						
Bear Wallow	8100	---	---	---	---	---
Beaver Head	8000	12/30	0	0.0	2.7	2.2
Coronado Trail	8400	12/30	0	0.0	2.7	2.2
CORONADO TRAIL SNOTEL	8400	12/30	---	0.0	1.9	---
Emory Pass #1 *	7800	12/30	0	0.0	---	---
Emory Pass #2 *	7800	12/30	0	0.0	0.0	1.3
Frisco Divide	8000	12/30	0	0.0	2.8	2.0
FRISCO DIVIDE SNOTEL	8000	12/30	---	0.0	3.1	---
Hannagan Meadows *	9090	12/30	3	0.7	4.3	4.8
HANNAGAN MEADOWS SNOTEL	8960	12/30	---	2.4	3.7	---
Hummingbird (A)	10550	12/30	0	0.0	---	---
LOOKOUT MOUNTAIN SNOTEL	8150	---	---	---	1.2	---
McKnight Cabin * (A)	9300	12/30	0	0.0	---	---
Mogollon	7000	12/31	0	0.0	0.0	0.8
Nutrioso	8500	12/30	0	0.0	1.9	1.5
Redstone Trail	8600	12/31	0	0.0	3.0	4.6
Rose Canyon	7300	---	---	---	---	---
SIGNAL PEAK SNOTEL	8360	12/30	---	0.0	0.5	---
Silver Creek Divide	9070	12/30	3	0.8	4.5	6.4
SILVER CREEK DIVIDE SNOTEL	9070	12/30	---	0.3	3.2	---
State Line	8000	12/30	0	0.0	1.9	2.0
Whitewater (A)	10750	12/30	18	4.5		
<b>VERDE RIVER</b>						
Baker Butte	7330	12/30	0	0.0	1.9	4.0
BAKER BUTTE SNOTEL	7330	12/30	---	0.0	1.9	---
Baker Butte #2	7700	12/30	T	0.2	---	---
Camp Wood	5700	12/30	0	0.0	---	---
Chalender *	7100	12/31	0	0.0	1.6	1.8
Copper Basin Divide	6720	---	---	---	0.7	1.5
Fort Valley	7350	12/31	0	0.0	0.9	1.2
FRY SNOTEL	7200	12/30	---	0.0	2.0	---
Gaddes Canyon	7600	12/31	0	0.0	2.0	3.0
Happy Jack	7630	12/30	0	0.0	1.0	2.7
Iron Springs *	6200	---	---	---	---	---
Mingus Mountain	7100	12/31	0	0.0	0.6	0.7
Mormon Lake *	7350	---	---	---	1.4	3.0
Mormon Mountain	7500	12/30	0	0.0	1.4	3.6
MORMON MOUNTAIN SNOTEL	7500	12/30	---	0.0	2.3	---
Mormon Mtn. Summit #2	8470	12/30	0	0.0	---	---
Newman Park	6750	12/30	0	0.0	---	---
Snow Bowl #1	10260	12/29	4	0.9	3.5	5.0
Snow Bowl #2	11000	12/29	13	3.0	---	---
SUGAR LOAF SNOTEL	6120	12/30	---	0.0	0.3	---
White Horse Lake Jct.	7180	12/30	0	0.0	---	---
WHITE HORSE LAKE JCT. SNOTEL	7180	12/30	---	0.0	---	---
White Spar	6000	---	---	---	---	---

† 1963-77 15-Year period. (\*) Adjacent drainage. (\*\*) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated.



# SNOW ABOUT JANUARY 1, 1981

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average †
<u>LITTLE COLORADO RIVER</u>						
Baldy	9220	12/30	7	1.5	2.2	4.0
BALDY SNOTEL	9220	12/30	—	2.4	2.3	—
Canyon Creek	7500	12/30	0	0.0		
Canyon Point	7600	12/30	0	0.0		
Cheese Springs	8600	12/30	9	1.5		
Forest Dale	6430	12/31	0	0.0		
Ft. Apache	9160	12/30	9	1.5	2.7	4.3
Fort Valley	7350	12/31	0	0.0	0.9	1.2
Happy Jack	7630	12/30	0	0.0	1.0	2.7
Heber	7640	12/30	0	0.0	1.8	3.0
HEBER SNOTEL	7640	12/30	—	0.0	1.8	—
Lake Mary	6970	12/30	0	0.0		
McNary	7225	12/31	T	0.2	1.8	2.0
M McNARY SNOTEL	7225	12/30	—	0.0	4.0	—
Mormon Lake	7350	12/30	0	0.0	1.4	3.0
Mormon Mountain	7500	12/30	0	0.0	1.4	3.6
MORMON MOUNTAIN SNOTEL	7500	12/30	—	0.0	2.3	—
Mormon Mtn. Summit #2	8470	12/30	0	0.0		
Nutriosio *	8500	12/30	0	0.0	1.9	1.5
Promontory Butte	7900	12/30	1	0.2		
PROMONTORY BUTTE SNOTEL	7900	12/30	—	0.5	—	—
Snow Bowl #1	10260	12/29	4	0.9	3.5	5.0
Snow Bowl #2	11000	12/29	13	3.0		
Wilson Lake	9000	12/30	11	2.0	4.1	5.0

† 1963-77 15-year period. (\*) Adjacent drainage. (\*\*) 1963-77 Adjusted Average. (A) Aerial observation: water content estimated. Snotel data edited.

## PRECIPITATION (Inches) ABOUT JANUARY 1, 1981

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. NOV. 1 TO DATE		
		Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
<u>GILA RIVER</u>							
Silver Creek Divide	9000	12/31	.65	4.50	1.15	6.19	19
Hannagan Meadows **	9030	---	---	3.46	---	5.06	--
Frisco Divide **	8000	12/30	.50	1.60*	.92	2.30*	40
<u>SALT RIVER</u>							
Canyon Point	7600	12/30	1.39	4.63*	1.59	7.17*	22
Hannagan Meadows **	9030	---	---	3.46	---	5.06	--
Little Wildcat (Heber Snow Course)	7600	12/30	1.84	4.09	2.04	6.37	32
Maverick Fork	9050	12/30	1.40	3.29	2.15	5.33	40
Workman Creek **	6970	12/31	1.55	4.09	1.55	6.88	23
Wilson Lake	9100	12/30	1.30	3.07	1.84	5.02	37
<u>VERDE RIVER</u>							
Baker Butte	7300	12/30	.98	4.54	1.18	6.82	17
Copper Basin Divide	6720			3.06		5.05	
Fort Valley **	7350	12/31	.88	2.31	.88	3.78	23
Happy Jack **	7480	12/30	.58	3.09	.58	4.89	12
Mingus Mountain	7660	12/31	0.21	1.76	0.21	3.67	--
Mormon Mountain	7500	12/30	1.17	4.67	1.17	7.55	15
White Horse Lake Jct.**	7150	---	---	3.00	---	4.90	--
<u>LITTLE COLORADO</u>							
Greer Lakes	8500	12/30	.45	1.90	1.19	2.98	40
Little Wildcat (Heber Snow Course)	7600	12/30	1.84	4.09	2.04	6.37	32
Sheep Crossing (Baldy Snow Course)	9125	12/30	1.45	3.05	2.37	4.91	48
1963-77 Average							
* Adjusted Average							
** Data Supplied by U.S. Forest Service							
Snotel data edited							

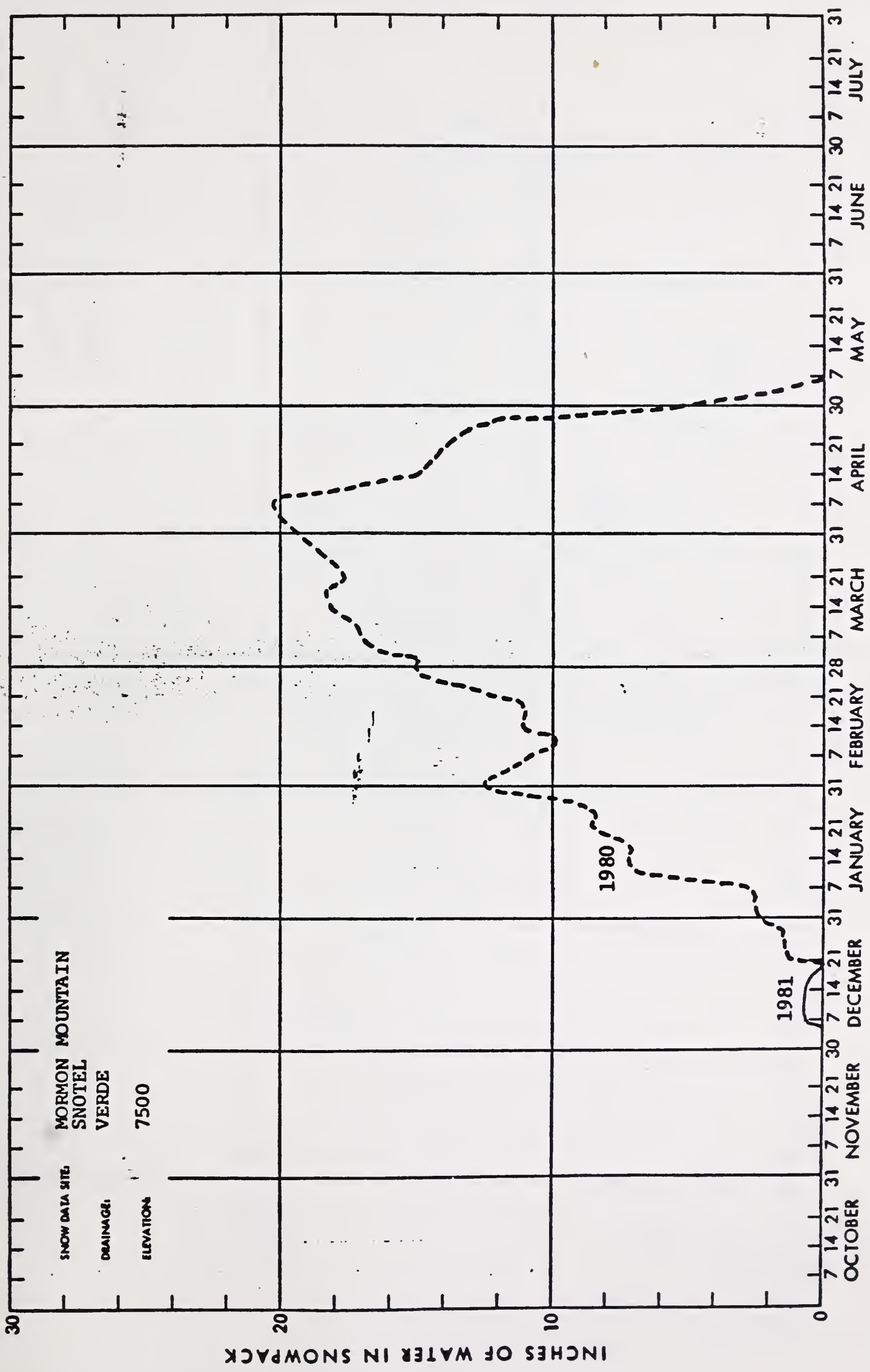
## PRECIPITATION (Inches) ABOUT JANUARY 1, 1981 (SNOTEL SITES)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. NOV. 1 TO DATE		
		Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
<u>GILA RIVER</u>							
<u>SNOTEL SITES</u>							
Coronado Trail	8400	12/31	0.9	---	0.9	---	---
Hannagan Meadows	8960	12/31	0.6	---	1.4	---	---
Frisco Divide	8000	12/31	0.6	---	1.1	---	---
Silver Creek Divide	9000	12/31	0.5	---	0.6	---	---
Lookout Mountain	8150	12/31	--	---	---	---	---
Signal Peak	8360	12/31	0.6	---	0.9	---	---
<u>SALT RIVER</u>							
<u>SNOTEL SITES</u>							
Promontory Butte	7930	12/31	1.1	---	1.1	---	---
Heber	7640	12/31	2.1	---	2.1	---	---
Hawley Lake	8250	12/31	2.0	---	2.0	---	---
McNary	7200	12/31	1.9	---	2.5	---	---
Bonito Rock	8270	12/31	1.5	---	2.0	---	---
Hannagan Meadows	8960	12/31	0.6	---	1.4	---	---
Maverick Fork	9050	12/31	1.3	---	1.9	---	---
Coronado Trail	8400	12/31	0.9	---	0.9	---	---
Workman Creek	6900	12/31	0.0	---	1.3	---	---
<u>VERDE RIVER</u>							
<u>SNOTEL SITES</u>							
White Horse Lake Jct.	7180	12/31		---		---	---
Fry	7200	12/31	1.6	---	1.8	---	---
Mormon Mountain	7500	12/31	1.0	---	1.0	---	---
Sugar Loaf	6120	12/31	0.9	---	0.9	---	---
Baker Butte	7300	12/31	0.9	---	1.0	---	---
<u>LITTLE COLORADO</u>							
<u>SNOTEL SITES</u>							
Baldy	9125	12/31	1.1	---	1.9	---	---
McNary	7200	12/31	1.9	---	2.7	---	---
Heber	7640	12/31	2.1	---	2.1	---	---
Promontory Butte	7930	12/31	1.1	---	1.1	---	---



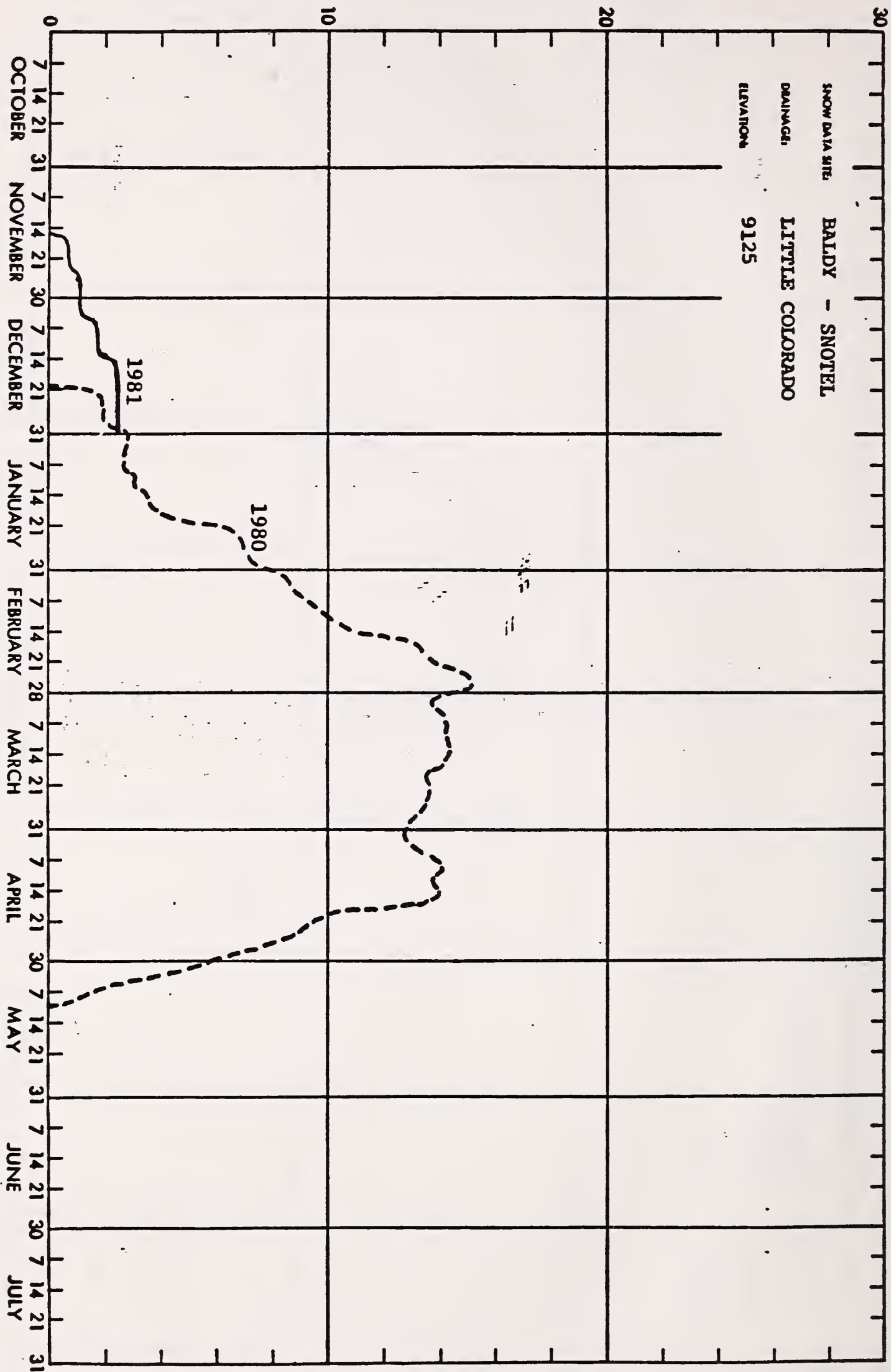


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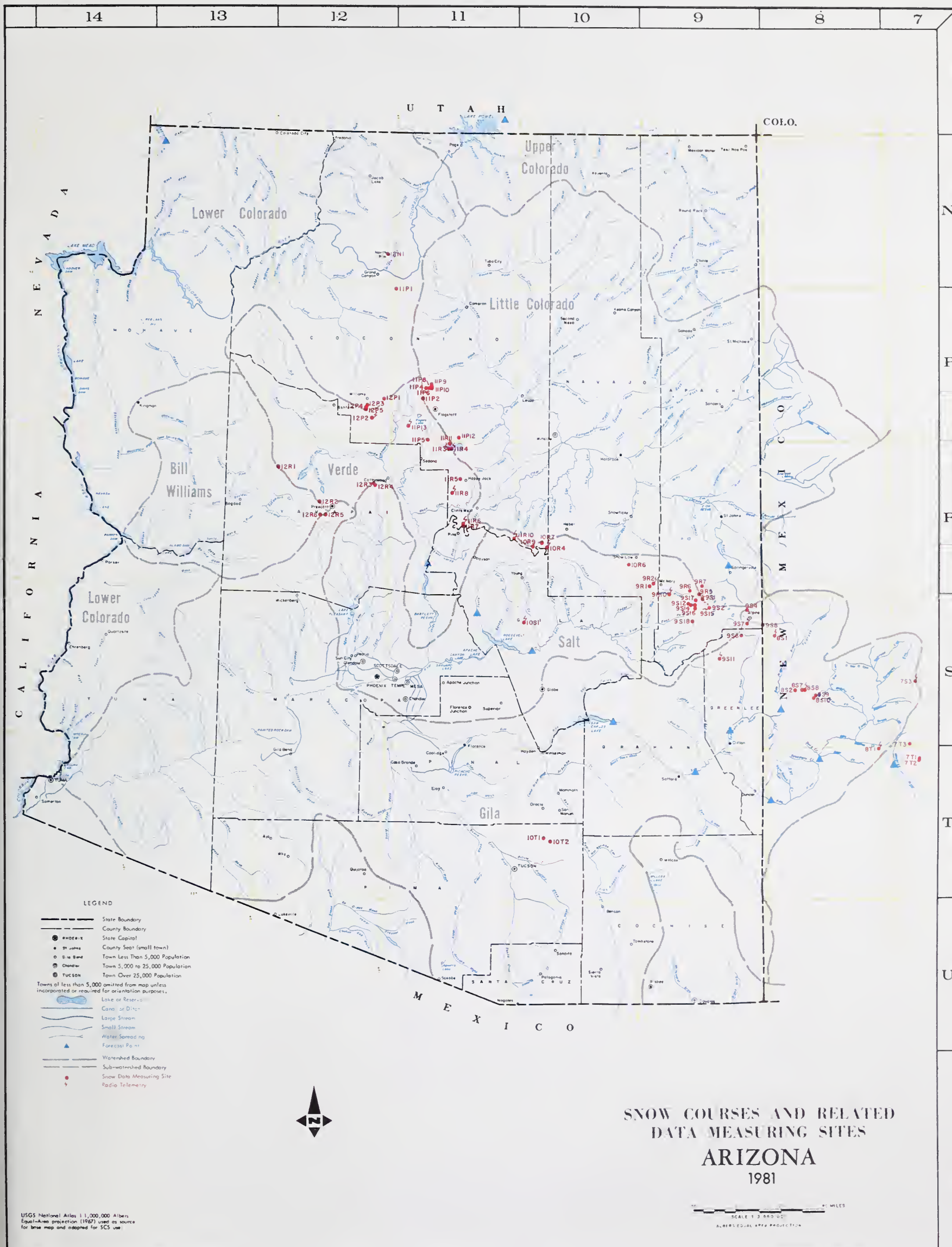


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# INCHES OF WATER IN SNOWPACK







# INDEX TO SNOW COURSES

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.	DRAINAGE	OBSERVER	RECORD BEGAN
11P10A	Agassiz	32	23N	7E	11200	Little Colorado	SCS-CF*	1968
11R6PSPRT	Baker Butte	4	12N	9E	7300	Verde	SCS	1966
11R7	Baker Butte #2	9	12N	9E	7700	Verde	SCS	1971
9S1APSPRT	Baldy	28	7N	27E	9125	Little Colorado	SCS	1950
9S15	Baldy #2	12	6N	26E	9750	Little Colorado	SCS	1963
9S16	Baldy #3	13	6N	26E	10950	Little Colorado	SCS	1963
10T1	Bear Wallow	6	12S	16E	8100	Gila	FS	1948
9S6	Beaver Head	13	4N	30E	8000	San Francisco	FS	1938
12P5	Bill William Intermediate	17	21N	2E	8550	Cataract	FS	1967
12P4	Bill Williams Summit	17	21N	2E	8950	Verde	FS	1967
9S18PSPRT	Bonito Rock		5N	26E	8270	Salt	SCS	1979
12N1	Bright Angel	34	33N	3E	8400	Bright Angel Creek	NPS	1947
12R1	Camp Wood	3	16N	6W	5700	Verde	FS	1946
10R7	Canyon Creek #2	18	11N	15E	7500	Little Colorado	SCS	1958
10R9P	Canyon Point	28	11N	14E	7600	Salt	SCS	1967
12P1	Chalender	27	22N	3E	7100	Verde	FS	1947
9R7	Cheese Springs	28	8N	27E	8600	Little Colorado	SCS	1969
12R6P	Copper Basin Divide	23	13N	3W	6720	Verde	SCS	1963
9S7PSPRT	Coronado Trail	26	5N	30E	8000	San Francisco	FS	1938
7T1	Emory Pass #1	16	16S	9W**	7800	Mimbres	SCS	1967
7T2	Emory Pass #2	16	16S	9W**	7800	Mimbres	SCS	1967
11P13PSPRT	Fry	35	20N	5E	7220	Verde	SCS	1978
10R6	Forest Dale	2	9N	21E	6430	Salt	BIA	1939
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado	SCS	1951
11P2P	Ft. Valley	22	22N	6E	7350	Little Colorado	FS	1947
8S1PSPRT	Frisco Divide	31	6S	20W**	8000	San Francisco	FS	1938
12R4	Gaddes Canyon	11	15N	2E	7600	Verde	SCS	1954
11P1	Grand Canyon	21	30N	4E	7500	Hance Creek	NPS	1947
9S11PSPRT	Hannagan Meadows	19	3N	29E	9090	San Francisco	FS	1964
11R5P	Happy Jack	30	16N	9E	7630	Verde	FS	1951
9R10PSPRT	Hawley Lake	13	7N	24E	8300	Salt	BIA	1966
10R4PSPRT	Heber	28	11N	15E	7600	Little Colorado	SCS	1950
8S9A	Hummingbird	19	11S	17W**	10550	Gila	SCS	1964
11P9P	Inner Basin #1	28	23N	7E	10000	Little Colorado	SCS-CF*	1967
11P8P	Inner Basin #2	28	23N	7E	9750	Little Colorado	SCS	1967
12R2	Iron Springs	22	14N	3W	6200	Little Colorado	SCS	1946
11P12	Lake Mary	21	19N	9E	6930	Little Colorado	SCS	1975
7S3PSPRT	Lookout Mountain	1	10S	10W	8500	Gila	SCS	1978
9S2APSPRT	Maverick Fork	13	6N	27E	9150	Salt	SCS	1950
7T3A	McKnight Cabin	10	15S	10W**	9300	Mimbres	SCS	1967
9R2PSPRT	McNary	23	8N	23E	7200	Salt	BIA	1939
9R1	Milk Ranch	33	8N	23E	7000	Salt	BIA	1941
12R3	Mingus Mountain	3	15N	2E	7100	Verde	SCS	1947
8S2	Mogollon	2	11S	19W**	7000	San Francisco	SCS	1953
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado	SCS	1947
11R3APSPRT	Mormon Mountain	14	18N	8E	7500	Verde	SCS	1950
11R11	Mormon Mountain Summit #2	2	18N	8E	8470	Little Colorado	SCS	1975
9S12A	Mt. Ord	4	6N	26E	11200	Salt	SRP-SCS	1966
11P5	Newman Park	25	19N	6E	6750	Verde	SCS	1963
9S4	Nutrioso	23	6N	30E	8500	San Francisco	FS	1938
11R10PSPRT	Promontory Butte	5	11N	13E	7930	Little Colorado	SCS	1973
8S7	Redstone Trail	5	11S	18W**	8600	San Francisco	SCS	1961
10T2	Rose Canyon	15	12S	16E	7300	Gila	FS	1948
8T1PSPRT	Signal Peak	13	16S	13W	8360	Gila	SCS	1977
8S8PSPRT	Silver Creek Divide	4	11S	18W**	9000	San Francisco	SCS	1964
9S14A	Smith Cienega	10	6N	26E	10050	Salt	SRP-SCS	1966
11P4	Snow Bowl #1	36	23N	6E	10260	Verde	FS	1961
11P6	Snow Bowl #2	31	23N	7E	11000	Verde	FS	1965
9S8	State Line	6	6S	21W**	8000	San Francisco	FS	1938
9S17	Sunrise Summit	36	7N	26E	10600	Salt	SCS	1972
11R8PSPRT	Sugarloaf	8	8E	14N	6120	Verde	SCS	1978
12P2PSPRT	White Horse Lake Jct.	2	20N	2E	7180	Verde	FS	1967
12R5	White Spar	19	13N	2W	6000	Verde	SCS	1963
8S10A	Whitewater	19	11S	17W**	10750	Gila	SCS	1964
12P3	Williams Ski Run	9	21N	2E	7720	Cataract	FS	1967
9R6P	Wilson Lake	4	7N	26E	9000	Salt	SCS	1966
10S1PSPRT	Workman Creek	33	6N	14E	6900	Salt	FS	1952

A Aerial Snow Depth Marker  
P Precipitation Storage Gage  
R Radio Telemetry (SNOTEL)

SP Snow Pressure Pillow  
T Temperature  
\*\* NM Principal Meridian  
\* City of Flagstaff



## The Following Organizations Cooperate in the Arizona Snow Survey Work

### FEDERAL

- Department of Agriculture
  - Soil Conservation Service
  - Forest Service
    - Apache-Sitgreaves Forest
    - Cocconino Forest
    - Coronado Forest
    - Gila Forest
    - Kaibab Forest
    - Prescott Forest
    - Rocky Mountain Forest and Range Experiment Station
    - Tonto Forest
- Department of Commerce
  - NOAA, National Weather Service
- Department of Interior
  - Bureau of Reclamation
    - Region III
  - Geological Survey
    - Arizona District
    - New Mexico District
  - Bureau of Indian Affairs
    - Fort Apache Reservation
  - San Carlos Irrigation Project
  - National Park Service
    - Grand Canyon National Park
- Gila Water Commissioner
  - Safford, Arizona

### STATE

- Arizona Game and Fish Department
- Arizona State Parks Board
- Arizona Water Commission
- University of Arizona
  - Arizona Agricultural Experiment Station
  - Water Resource Research Center
  - Department of Watershed Management

### MUNICIPAL

- City of Flagstaff

### IRRIGATION PROJECTS

- Salt River Valley Water User's Association
  - Phoenix, Arizona
- San Carlos Irrigation and Drainage District
  - Coolidge, Arizona
- Maricopa County Municipal Water Conservation District

### PRIVATE

- Southwest Forest Industries, Inc.
  - McNary, Arizona
- Fort Apache Indian Reservation
- White Mountain Recreation Enterprises

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.



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**FEDERAL - STATE - PRIVATE  
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necessary for forecasting  
water supply for irrigation,  
domestic and municipal water  
supply, hydro-electric power  
generation, navigation,  
mining and industry

*"The Conservation of Water begins  
with the Snow Survey"*